6.0 TRAIN VOLUMES

The existing and future rail traffic volumes were used to analyze the roadway traffic delay at the at-grade crossings. In addition, the rail volumes were used to determine the required physical plant for a new rail corridor. The Burlington Northern Santa Fe Railway (BNSF) and Kansas City Southern (KCS) operations were evaluated for both the existing and future traffic volumes within the study area. Additional detailed information on the rail traffic is included in the "Current Operations Technical Memorandum" in **Appendix D**.

6.1 EXISTING RAIL TRAFFIC

The existing rail traffic volumes were evaluated within the study limits for both the BNSF and KCS. This included the local rail traffic generated by industries within the study limits as well as through rail traffic along the respective rail lines.

6.1.1 BNSF Traffic

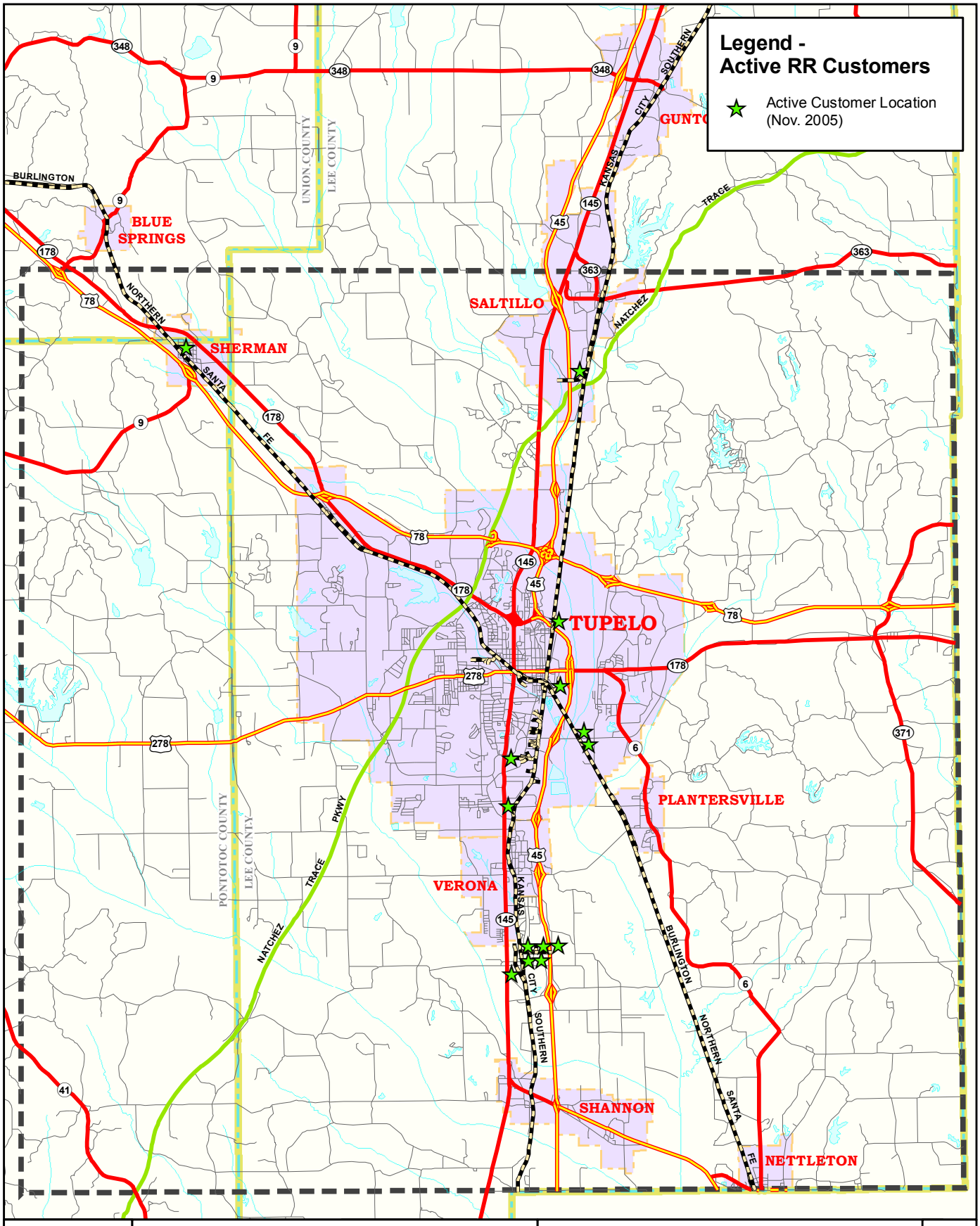
The Birmingham Subdivision of the BNSF averages 20 to 25 trains per day. The composition and tonnage of the trains is detailed in **Section 4.1.1.5.** Within the study limits, there are four (4) industries which contribute traffic to the line, shown on **Figure 6-1**, and the interchange with the KCS. Sherman has one active industry loading ten (10) to fifteen (15) cars of green crossties per week. Tupelo has three (3) active industries, a crosstie manufacturer which loads thirty-five (35) cars per week, and two (2) foam producers which each receive five (5) to ten (10) loads of chemicals and plastics per week. The existing interchange with the KCS in Tupelo averages ten (10) to fifteen (15) cars per day, but can be as busy as thirty (30) to forty (40) cars per day.

6.1.2 KCS Traffic

The Artesia Subdivision of the KCS averages one (1) through freight train and one (1) local train per day within the study limits. The tonnage, car count, and operation details are described in **Section 4.1.1.5.** There are nine (9) active industries within the study limits, shown on **Figure 6-1**. Verona has one (1) active industry receiving two (2) to three (3) cars per week of plastics. Tupelo has seven (7) active industries receiving or shipping an average of fifty-five (55) to sixty-five (65) cars per week of plastics, chemicals, carbon black, tires, and other raw materials. Saltillo has one (1) active paper product company which receives eight (8) to ten (10) cars per week and ships some outbound loads as well.

6.2 FUTURE RAIL TRAFFIC

Rail volume forecasts are greatly dependent upon multiple external factors. Railroad company mergers, industry growth and decline, industry relocation, and technological and efficiency improvements contribute to a high degree of uncertainty of the future train traffic volume beyond a few years.


Legend -
Active RR Customers
Active Customer Location
(Nov. 2005)
BLUE SPRINGS
SHERMAN
SALTILLO
TUPELO
PLANTERSVILLE
VERONA
SHANNON
NETTLETON
GUNTO
BURLINGTON
NORTHERN
SANTA FE
KANSAS CITY SOUTHERN
NATCHEZ TRACE
PKWY
UNION COUNTY
LEE COUNTY
PONTOTOC COUNTY
Map Legend
Prim. Road
Sec. Road
Road
Study Area
Cities
Lakes
Rivers
Railroad
US Highway
State Highway
Co. Boundary
N'tnl Parkway
MDOT
HDR
Tupelo Railroad Relocation
Planning and Environmental Study
Figure
6-1
Active Railroad
Customers
Miles
0 1 2 3
N

6.2.1 Methodology

There are several reasons why railroads experience difficulty in providing 20 to 25 year forecasts. Railroads don't often control their own future. Railroads are common carriers and respond to market forces and economic conditions. The number of shippers along a rail line is a key factor in determining the amount of rail traffic on that line. If additional shippers or customers requiring rail service on a particular railroad increase, then the rail volume may increase suddenly.

Additionally, efficiencies that the railroad industry strives to incorporate in their operation can affect rail traffic volumes. Trains can get longer, each rail car can handle more tonnage and as a result, growth is "absorbed". Long term trends in rail volume tend to mirror the growth in gross national product (GNP), which has averaged an increase of approximately 2% per year.

Consequently, the following methodology can be employed when trying to ascertain anticipated train volumes 20 to 25 years into the future. First, the existing traffic volumes for the rail segment in question must be obtained. Second, the railroad should provide their best guess on rail growth. Building on this information, a forecast can be made using a 2% annual growth projection for the planning horizon.

6.2.2 BNSF Traffic

The 2030 future train traffic volume for the BNSF line can be estimated between thirty-eight (38) and forty-one (41) trains per day within the Birmingham Subdivision. The length of trains can also be expected to increase from approximately 7,500 feet to as much as 9,000 feet, since BNSF is currently extending existing sidings to a length of 10,500 feet to accommodate the increased length.

6.2.3 KCS Traffic

The 2030 future train traffic volume for the KCS line can be estimated between three (3) and five (5) trains per day, including the local train operating in both directions. The average train length is also expected to increase to approximately 6,000 feet.

6.3 SUMMARY

The BNSF is expected to increase the length and volume of trains traveling through Tupelo. Based on the average length of a train being 9,000 feet and forty (40) trains a day, the at-grade crossings within downtown Tupelo will experience closure as much as four (4) hours per day. Trains will be passing through town at an average rate of two (2) per hour.